### (19) World Intellectual Property Organization

International Bureau



# 

#### (43) International Publication Date 2 May 1996 (02.05.1996)

#### **PCT**

### (10) International Publication Number WO 96/13015 A3

(51) International Patent Classification6:

Mark; Apartment No. 8, 1 Luffberry Avenue, Norwalk,

- (21) International Application Number: PCT/US95/13203
- (22) International Filing Date: 13 October 1995 (13.10.1995)
- (25) Filing Language:

English

G06F 17/60

(26) Publication Language:

English

(30) Priority Data: 08/323,118

14 October 1994 (14.10.1994) US

- (71) Applicant: UNITED PARCEL SERVICE OF AMER-ICA, INC. [US/US]; 55 Glenlake Parkway, N.E., Atlanta, GA 30328 (US).
- (72) Inventors: KADABA, Nagesh; 5 Hearthstone Drive,

Brookfield, CT 06804 (US). MOKTAN, Hridai; 14

Chatham Court, Brookfield, CT 06804 (US). PATEL,

CT 06851 (US).

(74) Agents: PAPPAS, Peter, G. et al.; Jones & Askew, 37th floor, 191 Peachtree Street, N.E., Atlanta, GA 30303-1769

- (81) Designated States (national): CA, JP.
- (84) Designated States (regional): European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

#### Published:

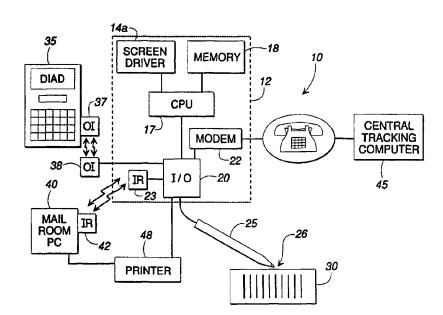
(US).

with international search report

(88) Date of publication of the international search report: 20 December 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MULTI-STAGE PARCEL TRACKING SYSTEM



(57) Abstract: A delivery tracking system capable of tracking parcels during an internal stage of delivery within an organization after receipt of the parcel from a parcel delivery service. The system utilizes an intelligent, hand-held, portable data entry and data processing device to obtain signatures of recipients and scan codes printed on parcel labels, and to respond to tracking inquiries prior to transferring collected information to a different computer. Data is entered on a touch-sensitive screen of a personal digital assistant using the tip of a wand-type bar code scanner.



### INTERNATIONAL SEARCH REPORT

Inter onal Application No PCT/US 95/13203

			101/03 33/13203
A. CLASSII IPC 6	FICATION OF SUBJECT MATTER G06F17/60		
According to	o International Patent Classification (IPC) or to both national cl	assification and IPC	
	SEARCHED		
Minimum do IPC 6	ocumentation searched (classification system followed by classification s	ication symbols)	
Documentati	ion searched other than minimum documentation to the extent t	hat such documents are incli	uded in the fields searched
Electronic d	ata base consulted during the international search (name of data	base and, where practical,	search terms used)
C. DOCUM	IENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the	he relevant passages	Relevant to claim No.
Х	DOCUMENT DELIVERY WORLD, vol. 9, no. 3, April 1993, ISSN US, pages 30-31, XP000560076 H. TOWLE: "On the fast track w		1
	TotalTrack: UPS deploys mobile service" see page 30, middle column, la	data	
Х	EP,A,O 565 290 (IBM) 13 October see column 2, line 41 - line 59 see column 5, line 47 - column	5	1-4
X	EP,A,0 573 018 (SYMBOL TECHNOLO December 1993 see column 7, line 24 - line 40 see column 17, line 27 - column 24	6	6,7
		-/	
X Fur	ther documents are listed in the continuation of box C.	X Patent family	members are listed in annex.
1 '	ategories of cited documents : nent defining the general state of the art which is not	or priority date as	blished after the international filing date nd not in conflict with the application but id the principle or theory underlying the
consider "E" earlier filing	dered to be of particular relevance r document but published on or after the international r date	invention "X" document of particular cannot be consider	cular relevance; the claimed invention ered novel or cannot be considered to ive step when the document is taken alone
which citation "O" docur	nent which may throw doubts on priority claim(s) or h is cited to establish the publication date of another on or other special reason (as specified) ment referring to an oral disclosure, use, exhibition or	"Y" document of particular cannot be considered document is com-	cular relevance; the claimed invention speed to involve an inventive step when the bined with one or more other such docubination being obvious to a person skilled
"P" docum	means nent published prior to the international filing date but than the priority date claimed	in the art.	r of the same patent family
	e actual completion of the international search  10 July 1996		f the international search report  AUG PG
	mailing address of the ISA	Authorized officer	
	European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+ 31-70) 340-3016	Pottie	z, M

## INTERNATIONAL SEARCH REPORT

Interional Application No
PCT/US 95/13203

	PCT/US 95/13203					
C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT						
Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.					
PROCEEDINGS OF THE INTERNATIONAL CONGRESS ON TRANSPORTATION ELECTRONICS, October 1992, SOCIETY OF AUTOMOTIVE ENGINEERS, INC. WARRENDALE, US, pages 371-382, XP000560489 H. KAWATA: "Information technology of commercial vehicles in the Japanese parcel service business" see page 375, left-hand column, paragraph 2 - right-hand column, last paragraph; figures 10,18	1-4					
WO,A,94 02908 (TELXON) 3 February 1994 see page 4, line 9 - page 5, line 18	1-4					
WO,A,89 04016 (ZENGRANGE) 5 May 1989 see claims	1-5					
US,A,5 278 399 (SANO) 11 January 1994 see column 3, line 57 - column 5, line 19	6,7					
	<u> </u>					
	PROCEEDINGS OF THE INTERNATIONAL CONGRESS ON TRANSPORTATION ELECTRONICS, October 1992, SOCIETY OF AUTOMOTIVE ENGINEERS, INC. WARRENDALE, US, pages 371-382, XP000560489 H. KAWATA: "Information technology of commercial vehicles in the Japanese parcel service business" see page 375, left-hand column, paragraph 2 - right-hand column, last paragraph; figures 10,18  W0,A,94 02908 (TELXON) 3 February 1994 see page 4, line 9 - page 5, line 18 W0,A,89 04016 (ZENGRANGE) 5 May 1989 see claims US,A,5 278 399 (SANO) 11 January 1994					

5

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

## ernational application No.

### INTERNATIONAL SEARCH REPORT

PCT/US 95/13203

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
<ol> <li>Claims 1-5: Electronic parcel tracking system.</li> <li>Claims 6,7: Method and apparatus for touch sensitive and barcode data entry.</li> </ol>
1. X As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

information on patent family members

Intr onal Application No
PCT/US 95/13203

Patent document cited in search report	Publication date	Patent f membe		Publication date
EP-A-0565290	13-10-93	US-A- CA-A- JP-A-	5313051 2090712 6028380	17-05-94 07-10-93 04-02-94
EP-A-0573018	08-12-93	CA-A- JP-A- US-A- US-A-	2097360 6096255 5369262 5508504	04-12-93 08-04-94 29-11-94 16-04-96
WO-A-9402908	03-02-94	US-A- AU-B- AU-B- EP-A- JP-T- US-A- US-A-	5334821 666575 4677393 0650618 8501400 5408077 5408078	02-08-94 15-02-96 14-02-94 03-05-95 13-02-96 18-04-95
WO-A-8904016	05-05-89	AU-B-	2800089	23-05-89
US-A-5278399	11-01-94	JP-A-	2253489	12-10-90